



CASE PH 7496 NP

CERTIFICATE OF MAILING

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Jing S. Belfield, Ph.D.

Type or print name

Signature

November 11, 2003

Date

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF

DEERBERG ET AL.

APPLICATION NO: 10/660,345

FILED: SEPTEMBER 11, 2003

FOR: ASYMMETRIC CATALYTIC HYDROGENATION PROCESS FOR
PREPARATION OF CHIRAL CYCLIC B-AMINOESTERS

MAIL STOP: D.D.
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

This paper is being filed within three months of the filing date of the application. Therefore, no fees are required. If a fee is deemed to be required, the Commissioner is hereby authorized to charge such fee to Deposit Account No. 19-3880.

In accordance with 37 C.F.R. §1.56, applicants wish to call the Examiner's attention to the references cited on the attached form(s) PTO-1449.

Copies of these references are enclosed herewith.

The Examiner is requested to consider the foregoing information in relation to this application and indicate that each reference was considered by returning a copy of the initialed PTO 1449 form(s).

Respectfully submitted,

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Date: November 11, 2003

INFORMATION DISCLOSURE CITATION

(use several sheets if necessary)

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent pages, Etc.)

	AI	Melillo, D. G.; Cvetovich, R. J.; Ryan, K. M.; Sletzinger, M., "An Enantioselective Approach to (+)-Thienamycin from Dimethyl 1,3-Acetonedicarboxylate and (+)- α -Methylbenzylamine", <i>J. Org. Chem.</i> 1986, 51, pp. 1498-1504.
	AJ	Haviari, G; Célérier, J. P.; Lhommet, G.; Gardette, D.; Gramain, J. C.; "Asymmetric Synthesis with Chiral Hydrogenolysable Amines. Cyclic β -Enamino Ester Reduction A Diastereoselective Route to 2,3-Disubstituted Pyrrolidines", <i>Tetrahedron Lett.</i> , Vol. 33, pp. 4311-4312, 1992.
	AK	Haviari, G; Célérier, J. P.; Petit, H.; Lhommet, G.; "Asymmetric Synthesis with Chiral Hydrogenolysable Amines. A Short Synthesis of (-) Isoretonecanol", <i>Tetrahedron Lett.</i> , Vol. 34., No. 10, pp. 1599-1600, 1993.
	AL	Agami, C.; Kadouri-Puchot, C.; Le Guen, V.; Vaissermann, J., "Neuromediator Analogs: Synthesis of cis (2R,3S) and trans (2S,3S)-2,3-Piperidine Dicarboxylic Acids from (2S)-2-Phenylglycinol", <i>Tetrahedron Lett.</i> , Vol. 36, No. 10, pp. 1657-1660, 1995.
	AM	Cimarelli, C.; Palmieri, G.; "Stereoselective Reduction of Anantiopure β -Anamino Esters by Hydride: A Convenient Synthesis of Both Enantiopure β -Amino Esters", <i>J. Org. Chem.</i> 1996, 61, pp. 5557-5563.
	AN	Hayashi, Y.; Rhode, J.J.; Corey, E.J.; "A Novel Chiral Super-Lewis Acidic Catalyst for Anantioselective Synthesis", <i>J. Am. Chem. Soc.</i> 1996, 118, pp. 5502-5503.
	AO	Agami, C.; Hamon, L.; Kadouri-Puchot, C.; Le Guen, V.; "Enantioselective Synthesis of Conformationally Restricted Analogs of NMDA: cis- and trans-Piperidine-2,3-dicarboxylic Acids and Methylated Derivatives", <i>J. Org. Chem.</i> 1996, 61, pp. 5736-5742.
	AP	Segat, F.; Lingibé, O.; Graffe, B.; Sacquet, M.C.; Lhommet, G.; "Asymmetric Synthesis with Chiral Hydrogenolysable Amines: A New Route to Enantiomerically Pure Amino Diols", <i>Heterocycles</i> , Vol. 45, No. 8, pp. 1451-1455.
	AQ	Blot, J.; Bardou, A.; Bellec, C.; Fargeau-Bellassoued, M. C.; Célérier, J. P.; Lhommet, G.; Gardette, D.; Gramain, J. C.; "Chiral Cyclic β -AMino Esters. Part II: Synthesis by Diastereoselective Reduction of Anamino Esters", <i>Tetrahedron Lett.</i> , Vol. 38, No. 49, pp. 8511-8514, 1997.
	AR	Daley, V.; d'Angelo, J.; Cave, C.; Mahuteau.J.; Chiaroni, ,A.; Riche, C.; "A Novel Asymmetric Synthesis of 2,5-Dialkylpyrrolidines", <i>Tetrahedron Letter</i> , Vol. 40, pp. 1657-1660, 1999.
	AS	David, O et al., "Enamino Ester Reduction: A Short Enantioselective Route to Pyrrolizidine and Indolizidine Alkaloids. Synthesis of (+)-Laburnine, (+)-Tashiromine, and (-)-Isoretonecanol", <i>J. Org. Chem.</i> 1999, 64, 3122-3131.
	AT	Zhong, H. M.; Cohen, J. H.; Abdel-Magid, A. F.; Kenney, B. D.; Maryanoff, C. A.; Shah, R. D.; Villani, F. J., Jr.; Zhang, F.; Zhang, X.; "An efficient stereoselective synthesis of methyl (S)-3-amino-3-(3-pyridyl)propanoate", <i>Tetrahedron Lett.</i> 1999,40, 7721-7725.
	AU	Mechelke, M. F.; Meyers, A. I.; "An efficient, asymmetric synthesis of (+)-euphoccoccine", <i>Tetrahedron Lett.</i> 2000,41, 4339-4342.
	AV	David, O.; Bellec, C.; Fargeau-Bellassoued; Lhommet, G.; "Diastereoselective reduction of chiral enaminolactones: A short and convenient route to anantiopure(+)-tashiromine", <i>Heterocycles</i> , Vol. 55, No. 9, 1689-1701, 2001.

EXAMINER

DATE CONSIDERED

*EXAMINER: Initial of reference considered, whether or not citation is in conformance with MPEP 609: Draw a line through citation if not in conformance and not considered. Include a copy of this form with the next communication to applicant.

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U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	OFFICE	CLASS	SUBCLASS	TRANSLATION YES	NO
/	AA	EP 062 840	3/31/82	EP			<input type="checkbox"/>	<input type="checkbox"/>
/	AB	EP 250 179	6/12/87	EP			<input type="checkbox"/>	<input type="checkbox"/>
/	AC	WO 00/43383	7/27/00	PCT			<input type="checkbox"/>	<input type="checkbox"/>
/	AD	WO 01/07433	2/1/01	PCT			<input type="checkbox"/>	<input type="checkbox"/>
	AE	WO 01/70673	9/27/01	PCT			<input type="checkbox"/>	<input type="checkbox"/>

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent pages, Etc.)

AF	Cimarelli, C.; Palmieri, G.; Bartoli, G.; "Diastereo and Enantioselective Entry to β -Amino Esters by Hydride Reduction of Homochiral β -Enamino Esters", <i>Tetrahedron: Asymmetry</i> , Vol. 5, No. 8, pp. 1455-1458, 1994.
AG	Xu, D.; Prasad, K.; Repič, O.; Blacklock, T. J.; "A practical synthesis of an antiopure ethyl <i>cis</i> -2-amino-1-cyclohexanecarboxylate via asymmetric reductive amination methodology", <i>Tetrahedron: Asymmetry</i> , Vol. 8, No. 9, pp. 1445-1451, 1997.
AH	Melillo, D. G.; Shinkai, I.; Liu, T., "A practical synthesis of (\pm)-Thienamycin", <i>Tetrahedron Lett.</i> , Vol. 21, 1980, pp. 2783-2786.

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FORM PTO-1449
(REV. 7-85)

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PATENT AND TRADEMARK OFFICE
SCLOSURE CITATION

Sheet 1 of 3

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AY	Wang, G. T., et al; "Design, Synthesis, and Structural Analysis of Influenza Neuraminidase Inhibitors Containing Pyrrolidine Cores", <i>J. Med. Chem.</i> 2001, 44, 1192-1201
AS	
AT	

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